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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/779,216	02/07/2001	You Mon Tsang	005275.P001	6639

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EXAMINER

HECK, MICHAEL C

ART UNIT	PAPER NUMBER
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3623

DATE MAILED: 06/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/779,216

Applicant(s)

TSANG ET AL.

Examiner

Michael Heck

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-9,11-16 and 18-21 is/are rejected.
- 7) ☒ Claim(s) 3,10 and 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

1. This Office Action is responsive to applicant's amendment filed 08 April 2004. Applicant's amendment of 08 April 2004 amended claims 1, 8 and 15. Currently, claims 1-21 are pending.

Response to Amendment

2. The objection to the specification in the First Office Action after the request for continued examination is still outstanding. No amendment to the specification was received to address the objection.

Response to Arguments

3. Applicant's arguments, see page 7, lines 17-22, filed 08 April 2004, with respect to the rejection of claim 1 under 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground of rejection is made in view of Tamayo et al. (U.S. Patent Application 2002/0083067) and Biffar (U.S. Patent 6,397,212) and Feldman (Feldman, S., The Answer Machine. (Information services management)(Industry Trend or Event), Searcher: The Magazine for Database Professionals, Vol. 8, No. 1, January 2000, Page 58 [DIALOG: file 16]). Applicant amended claim 1, 8 and 15 to further describe cleaning aggregated data by removing superfluous data elements including navigational and advertising elements.

In response, Tamayo et al. teach an enterprise-wide Web data mining system that uses Internet based data sources where the data mining engine is operable to generate a plurality of

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data mining models using the collected data with a server coupled to the network to receive a request for, generate, and transmit a prediction or recommendation over the network. Web access data is not necessarily transaction-based and can be extremely noisy. The Web data pre-processing performed includes data cleaning where data cleaning involves removing redundant or irrelevant information from Web server log files and is necessary before extracting useful information from log files (Abstract, Para 0105 and 0106). Applicant's amendment identifies cleaning aggregated data by removing superfluous data elements that Tamayo et al. teach, however, Tamayo et al. do not teach removing navigational and advertising elements. Navigational and advertising elements are considered non-functional descriptive material in that they do not exhibit any functional interrelationship with the way the in which computing processes are performed. The data cleaning process removes redundant or irrelevant information and it so happens the applicant is including navigational and advertising elements in the definition of redundant or irrelevant information. The data cleaning process functionally remains the same no matter what the data is that is being removed. See the 35 U.S.C. 103(a) rejections below.

Specification

4. The disclosure is objected to because of the following informalities:
 - Page 23, line 3, delete "one the MMAS completes", and insert -- **once** the MMAS completes --.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 5-9, 12-16, and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamayo et al. (U.S. Patent Application 2002/0083067) in view of Biffar (U.S. Patent 6,397,212). Tamayo et al. disclose a system of analyzing networked searches within business markets comprising:

- **[Claim 1]** aggregating data gathered from networked sources, wherein the data includes a plurality of documents and cleaning said aggregated data by removing superfluous data elements including navigational and advertising elements and extracting metadata (Para 7, 8, 105, 106, Tamayo et al. teach Enterprise web mining involves collecting data from a plurality of data sources, integrating the collected data, and generating a prediction or recommendation in response to a received request. The plurality of data sources comprises proprietary account or user-based data; complementary external data, web server data, and web transaction data. The web server data comprises web traffic data obtained by Transmission Control Protocol/Internet Protocol packet sniffing, web traffic data obtained from an application program interface of the web server, and a log file of the web server. Web access data is not necessarily transaction-based and can be extremely noisy. The Web data pre-processing performed includes data cleaning that involves removing redundant or irrelevant information from Web server log files. Tamayo et al. do not teach removing navigational and advertising elements, however, the navigational and advertising elements are considered non-functional descriptive material as indicated above in that they do not exhibit any functional interrelationship with the way the in which computing processes are performed. Web-server data is considered metadata.);
- storing said cleaned data in a database (Para 48, Tamayo et al. teach memory stores the data that are used.);
- generating a reporting analysis, and formatting the reporting analysis in accordance with previously submitted user preferences, wherein the reporting analysis is based on the search criterion provided by the user and the results from said data analysis (Para

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69-70, and 90, Tamayo et al. teach a personalization application that is an integrated software application that provides a way for a Web site to customize or personalize the recommendations it presents to Web site visitors and customers. The recommendations are personalized for each visitor to the Web site. Recommendations are based on the visitor's data. The reporting engine provides a variety of reports and result summaries.)

Tamayo et al fail to teach extracting the actual body of a document and receiving a set of search criterion submitted by a user and automatically and transparently modifying the search criterion if a historical analysis of previous sets of search criterion provided and modified by the user indicates a refined version of the search criterion. Biffar teaches a search engine that allows for intelligent multi-dimensional searches, in which the search engine always presents a complete, holistic result, and in which the search engine presents knowledge (i.e. linked facts) and not just information (i.e. facts). The description shows the search results that can be text based, a picture, video, sound, or a combination thereof. The description can be short or long and have scroll down features, be interactive, hyper linked to detailed descriptions, or include special effects. The system is adaptive, such that the search results improve over time as the system learns about the user and develops a user profile. The search engine is self-personalizing in that it collects and analyzes the user history where the user reacts to solutions and the system learns from such user reactions (col. 3, lines 21-35, and col. 6, lines 15-24). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to include the complete, holistic search engine results and system adaptive, learning search capability teachings of Biffar with the teachings of Tamayo et al. because Tamayo et al. teach that it is old and well known in the data-mining art to collect data from a plurality of data sources and generate a recommendation in response to a received request (Para 7). Management wants accurate, detailed data to be

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analyzed and summarized quickly in order to make sound business decisions. Computer and Internet technology enables users to collect data and with data-mining techniques allows the user to analyze and summarize the data retrieved. The computers greatly reduce the time collect data and to analyze and summarize the data, therefore, allowing management to have access to up-to-date processed information to make informed business decisions.

- **[Claim 2]** applies performance metrics according to the data gathered from user (Tamayo et al.: Para 68, Tamayo et al. teach web mining consisting of data-mining of click stream data provide the capability to generate statistical usage reports).
- **[Claim 5]** focuses on particular industries and may be any of: marketing, support, finance, research and development, sales or executive (Biffar: col. 4, lines 27-60, Biffar teaches that each item stored in the item database comprises a complete product or service. Similar items are structured along the same characteristics such as, for example, a mutual fund: name, prospective objectives, portfolio manager, historical profile rating, performance, risk analysis, portfolio analysis, and current analysis. A Mutual Fund relates to the finance industry.).
- **[Claim 6]** focuses on particular departments within the particular industries and may be any of: high-technology, electronics, automotive, financial services or entertainment (Biffar: col. 4, lines 27-60, Biffar teaches that each item stored in the item database comprises a complete product or service. Similar items are structured along the same characteristics such as, for example, a mutual fund: name, prospective objectives, portfolio manager, historical profile rating, performance, risk analysis, portfolio analysis, and current analysis. A Mutual Fund relates to the finance industry and the portfolio manager relates to the particular department within a financial services business.).
- **[Claim 7]** may include publication listings and/or the timeframe in which these publications have been published (Biffar: col. 4, lines 27-60, Biffar teaches that each item stored in the item database comprises a complete product or service. Similar items are structured along the same characteristics such as, for example, a book: author, title, publisher, year published, and type of book, type of content, category, and price.).

Claims 8, 9, 12-16 and 19-21 recite substantially the same limitations as that of claims 1, 2, 5-7 with the distinction of the recited method being a system and an apparatus that includes

computer readable media with executable instructions. Hence the same rejection for claims 1, 2, 5-7 as applied above applies to claims **8, 9, 12-16 and 19-21**.

6. **Claim 4, 11 and 18** are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamayo et al. (U.S. Patent Application 2002/0083067) and Biffar (U.S. Patent 6,397,212) in view of Feldman (Feldman, S., The Answer Machine. (Information services management)(Industry Trend or Event), Searcher: The Magazine for Database Professionals, Vol. 8, No. 1, January 2000, Page 58 [DIALOG: file 16]). Tamayo et al. and Biffar disclose a system of analyzing networked searches within business markets but fail to teach the said data analysis is updated subsequent to any additional reporting analysis conducted after the first reporting analysis is completed. Feldman teaches setting up a filter, profile or “standing query” which runs against any new additions to the database to support a search type of continuous monitoring of a subject (Para 5 and 67). It would have been obvious to one of ordinary skill in the art at the time of the applicant’s invention to incorporate the continuous monitoring teachings of Feldman with the teachings of Tamayo et al. and Biffar because Tamayo et al. teach the capability to find patterns and important relationships in clickstreams (Para 34). Data mining uses statistical methods and search software to uncover useful patterns inside databases. Time is money and getting the right information and analyzing it is paramount to a company’s success. Data mining allows companies to quickly capture details of business information and mission-critical relationships that affect their business allowing the managers to make time sensitive decisions that ensure the success of the business.

Allowable Subject Matter

7. **Claims 3, 10 and 17** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Fayyad et al. (Fayyad et al., The KDD Process for Extracting Useful Knowledge from Volumes of Data, Association for computing Machinery. Communications of the ACM, Vol. 39, No. 11, November 1996 [PROQUEST]) discloses data cleaning to remove noise or outliers if appropriate and on-line analytical processing (OLAP). The KDD process includes selecting the target data, pre-processing the data, transforming the data, data mining or looking for patterns, interpretations or evaluation of the data and finally communicating the knowledge learned.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Heck whose telephone number is (703) 305-8215. The examiner can normally be reached Monday thru Friday between the hours of 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq R. Hafiz can be reached on (703) 305-9643.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

Any response to this action should be mailed to:

**Director of the United States Patent and Trademark Office
P.O. Box 1450
Alexandria, Virginia 22313-1450**

Or faxed to:

(703) 872-9306 [Official communications; including After Final communications labeled "**Box AF**"]

(703) 746-9419 [Informal/Draft communication, labeled "**PROPOSED**" or "**DRAFT**"]

Hand delivered responses should be brought to Crystal Park 5, 2451 Crystal Drive, Arlington, Virginia, and the 7th floor receptionist.

mch
8 June 2004


**TARIQ R. HAFIZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600**